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CLAIMS

- 1. An electrolytic capacitor obtained by impregnating a capacitor element with electrolyte solution, wherein the capacitor element is formed by wounding an anode electrode foil and a cathode electrode foil, which are connected to an anode tab and to a cathode tab respectively, together with intervening a separator, housing the capacitor element in a cylindrical outer case with a bottom, and sealing an open end of the outer case by a sealing member, characterized in that a electrolyte solution containing aluminum tetrafluoride salt is used as the electrolyte solution, and a foil that shows noble electrode potential at least in said electrolyte solution than an electrode potential of the cathode tab is used as the cathode electrode foil.
- 2. An electrolytic capacitor according to claim 1, characterized in that a foil that a layer of $0.02-0.1\mu m$ made of a metal nitride selected from the group consisting of titanium nitride, zirconium nitride, tantalum nitride and niobium nitride or a metal selected from the group consisting of titanium, zirconium, tantalum and niobium is laminated on a surface of the aluminum foil is used as the cathode electrode foil.
- 3. An electrolytic capacitor obtained by wounding an anode electrode foil provided with an anode leading means and a cathode electrode foil, which is made of aluminum subjected to a chemical treatment, provided with a cathode leading means made of aluminum of more than 99.9% of purity together with intervening a separator to form a capacitor element, impregnating the capacitor element with a electrolyte solution containing an aluminum tetrafluoride salt, and then housing it in a outer case.
- 4. An electrolytic capacitor obtained by winding an anode electrode foil, a cathode electrode foil and a separator to form a electrolytic capacitor and impregnating the electrolytic capacitor with a electrolyte solution, and housing it in an outer case, wherein the electrolyte solution containing aluminum tetrafluoride salt is used as said electrolyte solution, and wherein the electrode foil subjected to a phosphate treatment is used as the anode electrode foil and the cathode electrode foil.

5. An electrolytic capacitor according to claims 1 to 4, wherein a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene and divinylbenzene is used as the sealing member.